

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1-7 (withdrawn)

8. (original) A method for forming a propshaft assembly comprising:

- forming a shaft structure;
- forming a first insert;
- forming a second insert, the first and second inserts being non-identical; and
- inserting the first and second inserts into the shaft structure in an axially spaced-apart relation to one another.

9. (original) The method of Claim 8, further comprising determining a location of a first bending anti-node and a second bending node along a length of the shaft structure.

10. (original) The method of Claim 9, wherein the first insert is located at the first bending anti-node and the second insert is located at the second bending anti-node.

11. (original) The method of Claim 10, wherein each of the first and second inserts has a length, a mass, a density and a resilience, and wherein at least one of the length, the mass, the density and the resilience of the first insert is different than that of the second insert.

12. (original) The method of Claim 11, wherein at least one of the first and second inserts is press-fit to the shaft structure.

13. (original) The method of Claim 12, wherein the first and second inserts are similar.

14. (original) The method of Claim 8, wherein the first and second inserts are similar.

15. (original) A method for reducing vibration in a vehicle driveline comprising:
providing a shaft assembly with a shaft structure;
coupling the shaft structure to a power transmitting device, the power transmitting device including a pair of meshing gears;
transmitting rotary power between the shaft assembly and the power transmitting device, the meshing gears thereby generating gear mesh vibration that is transmitted to the shaft assembly;
determining a location of a first bending anti-node and a second bending anti-node along a length of the shaft structure;
inserting a first insert at the first bending anti-node; and
inserting a second insert at the second bending anti-node, the first and second inserts being non-identical.

16. (original) The method of Claim 15, wherein each of the first and second inserts has a length, a mass, a density and a resilience, and wherein at least one of the length, the mass, the density and the resilience of the first insert is different than that of the second insert.

17. (original) The method of Claim 16, wherein at least one of the first and second inserts is press-fit to the shaft structure.

18. (original) The method of Claim 16, wherein the first and second inserts are similar.

19. (new) A method for assembly a propshaft assembly comprising:
providing a shaft structure;
rotating the shaft structure to generate first and second bending anti-nodes;
determining the location of the first and second anti-nodes along the length of the shaft structure;
positioning a first insert member at the first anti-node position; and
positioning a second insert member at the second anti-node position, said first insert member being non-identical to the second insert member.

20. (new) The method of Claim 19 wherein each of the first and second insert members has a length, a mass and a density, and wherein at least one of the length, the mass and the density of the first insert member is different than that of the second insert member.

21. (new) The method of Claim 19 wherein each of the first and second insert members has an outer surface adapted to engage an inner surface of the shaft structure.

22. (new) The method of Claim 19 wherein the step of rotating the shaft structure comprises rotating the shaft structure at a predetermined rotary speed for generating a corresponding predetermined frequency at which an anticipated maximum displacement of the shaft structure occurs at one of the first and second anti-node positions.

23. (new) The method of Claim 22 wherein the first and second insert members are selected to reduce the anticipated displacement of the shaft structure at the anti-nodes.

24. (new) A method for assembling a propshaft assembly comprising:
providing a hollow shaft;
causing the shaft to vibrate in response to receipt of an input of a predetermined frequency so as to generate a pair of first and second bending anti-nodes in spaced relation along the length of the shaft;
inserting a first insert member at a position within the hollow shaft corresponding to the first anti-node, the first insert member being selected from a material adapted to attenuate vibration at the first anti-node position; and
inserting a second insert member at a position within the hollow shaft corresponding to the second anti-node, the second insert member being selected from a material adapted to attenuate vibration at the second anti-node position.

25. (new) The method of Claim 24 wherein the first inset member is made from a material having at least one of a length, a density or a mass characteristic that is different than that of the material from which the second insert member is made.